

What is claimed is:

1. A hydrophilization agent for metallic material, comprising:

5 (A) a hydrophilic polymer having at least one non-ionic functional group selected from the group consisting of primary amide groups, secondary amide groups, tertiary amide groups, hydroxyl groups and [a] polyoxyalkylene [group] groups;

10 (B) a hydrophilic polymer having at least one ionic functional group selected from the group consisting of sulfonic acid groups, phosphonic acid groups, carboxyl groups, primary amino groups, secondary amino groups, tertiary amino groups and quaternary ammonium groups;

(C) a vanadium compound; and

15 (D) a compound containing at least one element selected from the group consisting of Zr, Ti, and Si.

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